

#1033

HIGH-POWER COMPACT DISC PLAYER  
WITH FM/MW/LW TUNER

PIUSSANT LECTEUR DE CD  
AVEC SYNTONISEUR FM/PO/GO

# OWNER'S MANUAL MODE D'EMPLOI

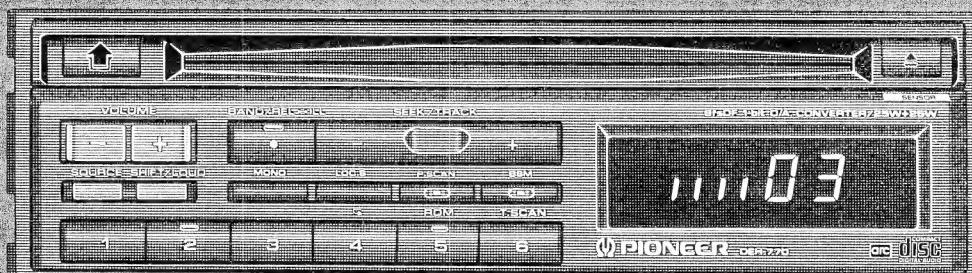
Thank you for purchasing this PIONEER product. Before attempting operation, be sure to read this manual.

Nous vous remercions d'avoir acheté cet appareil PIONEER. Avant de l'utiliser, prendre soin de lire ce manuel.

Vielen Dank für den Kauf dieses PIONEER Produkts. Diese Bedienungsanleitung vor der Inbetriebnahme sorgfältig durchlesen.

Muchas gracias por la adquisición de este producto PIONEER. Antes de tratar de operarlo, lea atentamente este manual.

Muito obrigado por comprar este produto PIONEER. Leia este manual de instruções completamente antes de usar a unidade.



DEH-770

 **PIONEER®**  
*The Art of Entertainment*

11/94  
OWNER'S  
MANUAL  
DEH-770

11/94

# Features

**Note:**

- A "CLASS 1 LASER PRODUCT" label is affixed to the bottom of the player. (Fig. 1) (Fig. 2)
- There is a screw on the top of the unit to protect the unit during transportation. Remove the screw before installing the unit and fix the seal supplied over the screw hole. Keep the screw because it must be used if you transport the unit later. (Fig. 2)



Fig. 1

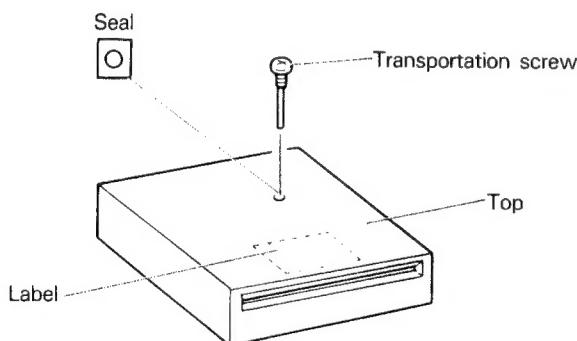


Fig. 2

- An 8-times-oversampling digital filter and 1-bit digital-to-analog converter allow CD's to be played with exceptional fidelity.
- Plays 8-cm and 12-cm CDs. No adapter needed for 8-cm discs.
- Various selection functions (track number search, highlight scan, fast forward and reverse).
- Built-in highly sensitive "Automatic Reception Control" (ARC) for automatic control of stereo separation, muting, and frequency characteristics to match the strength of the FM signal.
- The Best Stations Memory automatically memorizes the six best (strongest) stations in the six preset buttons in the order of their strength.
- Removable front panel protects against theft.
- Wireless remote controller included as an accessory to keep often used controls at your fingertips.  
(This feature is provided for the DEH-770.)
- 25W + 25W maximum output for sound with power to spare.

- **Electronic Tuner**

Frequency allocation differs depending upon the area. This unit has been designed in accordance with the frequency allocations for Western Europe, Asia, the Middle and Near East, Africa, Australia and Oceania. Use in other areas may result in improper reception of AM.

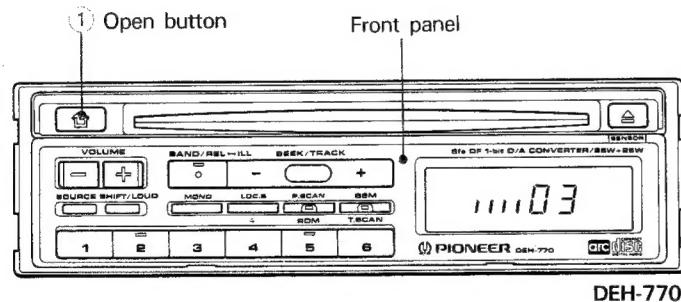
# Using the Removable Front Panel

The front panel of this unit can be removed to prevent theft.

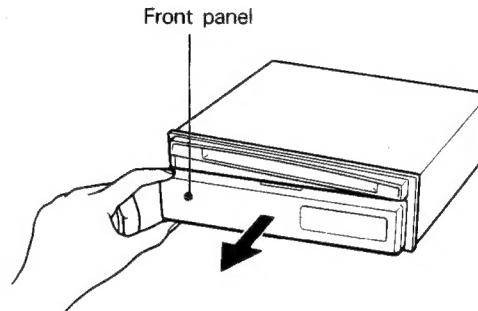
- If the car's ignition switch is turned "OFF" with the front panel remaining on the main body, the buzzer will be heard for a few seconds in order to warn you that the panel must be removed for the purpose of preventing theft when leaving the car.

## Detaching the Front Panel

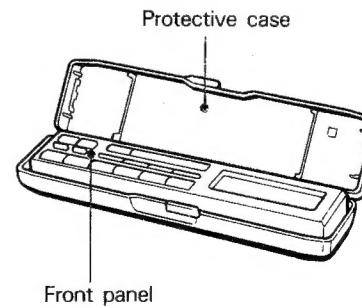
1. Press button ①, and the left-hand side of the panel will eject.



2. To remove the front panel, pull its left-hand side toward you.

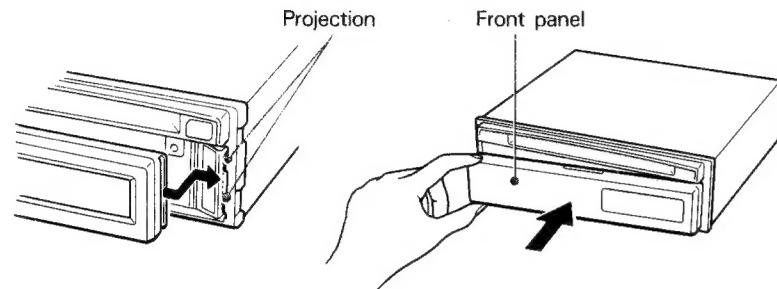


- Take care not to put pressure on the display or drop the front panel.
- 3. Enclose for safekeeping the front panel that is removed in the supplied protective case.



## Replacing the Front Panel

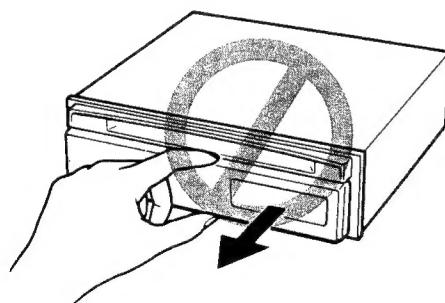
1. With a hollow in the right-hand end of the front panel aligned to projections on the right-hand front wall of the equipment, press the panel's left-hand side against the equipment to put it into place.



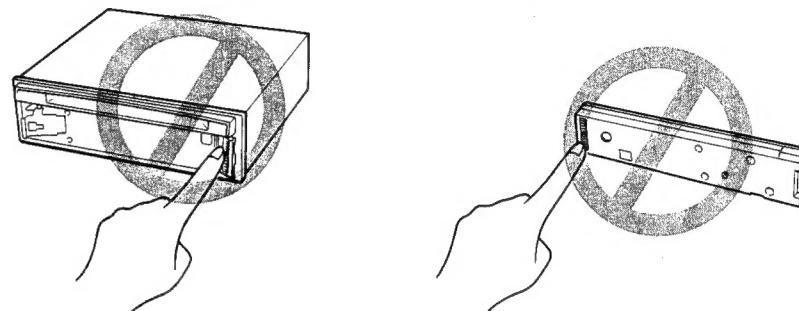
- When replacing the front panel, do not put pressure on the display or control buttons.

## Precautions

- Do not force the front panel to remove it.



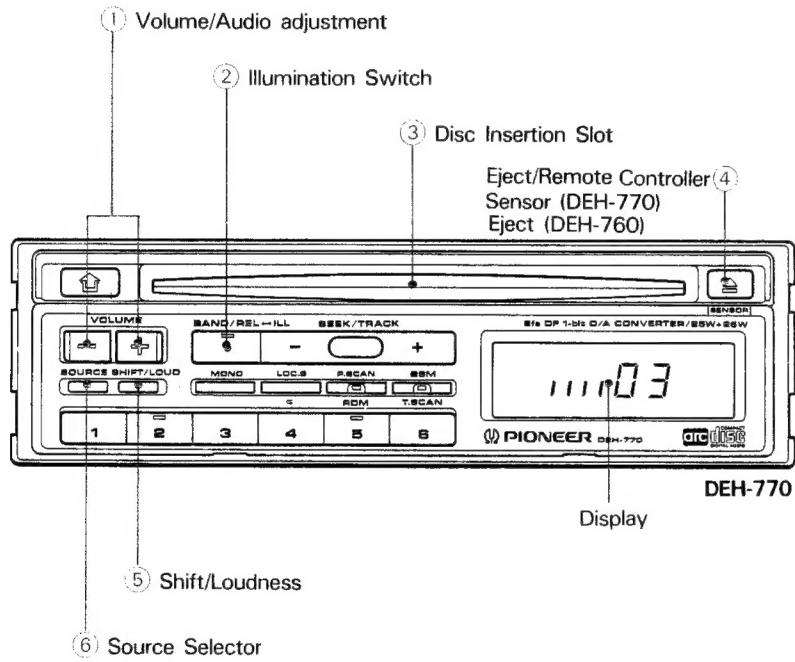
- Do not touch the contacts on the front panel or on the unit body, since this may result in poor electrical contact. If dirt or other foreign substances get on the contacts, wipe them with a clean, dry cloth.



## Precautions When Handling the Front Panel

- Do not leave the front panel in any area exposed to high temperatures or direct sunlight.
- Do not drop the front panel or otherwise subject it to strong impact.
- Do not allow such volatile agents as benzine, thinner, or insecticides to come into contact with the surface of the front panel.
- Never try to disassemble the front panel.

# Adjusting Volume and Tone



## Switching Power On

### Tuner

Press button ⑥ to switch the tuner power on. Press button ⑥ again to switch the power off.

### CD Player

When a disc is inserted half-way into the disc insertion slot ③ with its label side upward, the disc is automatically loaded and played. To remove the disc, push button ④.

## Changing the source

To change the source, push button ⑥ with the disc inserted in the slot. At each press of the button, the source changes as follows: CD Player-Tuner-OFF

Note that if you press button ⑥ to halt playing, the disc resumes playing with about the remainder when set to start again.

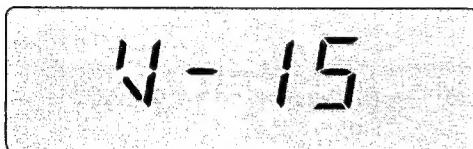
## Adjusting Audio

When the display indicates disc or tuner, press button ① to adjust the volume. Each press of button ⑤ changes the display and the function of button ① as follows:

Volume→Fader→Bass→Treble→Balance

## Adjusting Volume

Pressing the (+) side of button ① increases the volume, while the (–) side decreases it.



## Adjusting Treble

Pressing the (+) side of button ① increases treble, while the (–) side decreases treble.



## Adjusting the Fader

This function controls the balance between the front and rear speakers of a 4-speaker system. Pressing the (+) side of button ① shifts the balance to the front speakers, while the (–) side shifts it to the rear speakers. For 2-speaker systems, set FAD 0.



## Adjusting Balance

Pressing the (–) side of button ① shifts the balance to the left speaker, while the (+) side shifts it to the right speaker.



- When you're adjusting fader, bass, treble, or balance settings, the indicator will stop at the center setting. About 5 seconds after adjustment has been made, the display returns to its previous state.

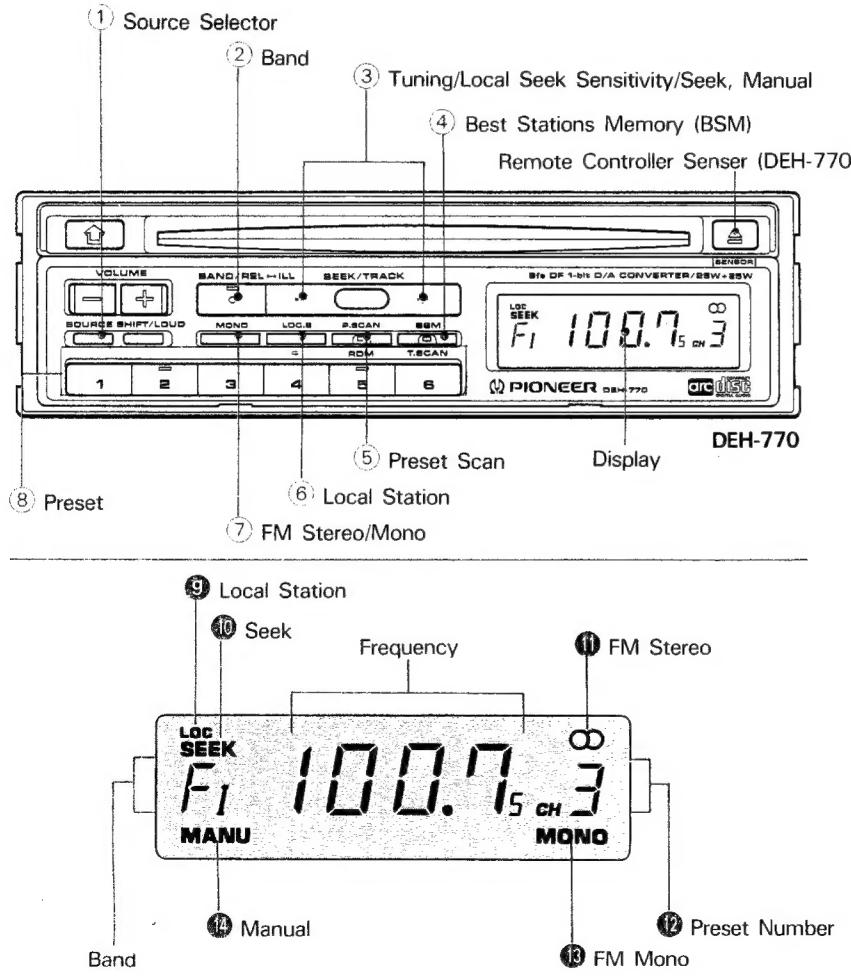
## Using the Loudness Function

Press button ⑤ for about two seconds and the "LOUD" indication will appear on the display. This loudness function lets you enhance both high and low frequencies to give a more natural sound at low volumes. To cancel this function, press button ⑤ again for about two seconds.

## Switching Illumination Colour

You can select either green or amber for the switch illumination colour. To switch the colour, hold down button ② for two seconds.

# Using the Radio



- 1 Press Button ① to switch the radio power on.
- 2 Press Button ② to select a band.  
 $F_1 \rightarrow F_2 \rightarrow F_3 \rightarrow M/L$   
(FM1) (FM2) (FM3) (MW/LW)  
Use button ③ to switch between MW (531–1,602 kHz) and LW (153–281 kHz).
- 3 Use seek tuning to tune in a frequency.  
Confirm that the "SEEK" indicator ⑩ is shown on the display (if not, press the (+) and (–) sides of button ③ at the same time). Press the (+) side of button ③ to automatically tune in the next higher receivable frequency, and the (–) side for a lower frequency.
- 4 Adjust volume and tone (see page 5).
- 5 Assign the tuned frequency to one of the Buttons in Bank ⑧ (preset memory).  
Press and hold down one of the buttons in Bank ⑧ for at least two seconds. The frequency is assigned to the selected button when the preset number ⑫ stops flashing on the display. Up to 18 FM stations (6 each for FM1, FM2 and FM3), and six MW/LW stations can be assigned to the preset memory buttons in Bank ⑧.
- 6 Once a frequency is assigned to a Button in Bank ⑧, you just need to press that Button to tune it in.  
This also causes the number of the button pressed to appear at Position ⑫ on the display.

## Preset Scan Tuning

This function lets you automatically monitor the stations assigned to the preset buttons.

1. Press the button ⑤, and the preset number ⑫ flash.

Each station assigned to the buttons in Bank ⑧ will be automatically tuned in for about eight seconds.

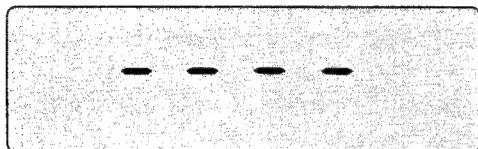
2. When you hear a station that you like, press button ⑤ again to cancel preset scan tuning and remain at that station.

## BSM (Best Stations Memory)

This function automatically locates stronger stations and automatically assigns their frequencies to the buttons in Bank ⑧, from strongest to weakest. It comes in handy when trying to find local stations while driving.

1. Press button ② and select a band.

2. Hold down button ④. After about two seconds, a "beep" will sound to signal that the BSM search has started. At this time, " - - - - " will flash on the display.



3. The frequency display will return once BSM search is complete, and frequencies are assigned to buttons 1 through 6 in Bank ⑧.

- At the end of the BSM search, the displayed frequency is that assigned to button ① of Bank ⑧.
- If there are fewer than six strong stations in the area, some of the buttons in Bank ⑧ will not be assigned frequencies, so they will retain any frequencies assigned to them previously.
- BSM search may take as long as 30 seconds in areas where there are few strong stations.
- You can cancel BSM search by pressing button ④ again.

## Manual Tuning

Use manual tuning when stations are too weak to be picked up by seek tuning.

1. Press both (+) and (-) sides of button ③ simultaneously to illuminate "MANU" ⑭.
2. Each press of the (+) side of button ③ increases the frequency in 50 kHz steps in the FM band, 9 kHz in the MW band and 1 kHz in the LW band. Pressing the (-) side of button ③ decreases the frequency. Holding down either side of button ③ changes the frequency at high speed.

## Switching between FM Stereo and Mono

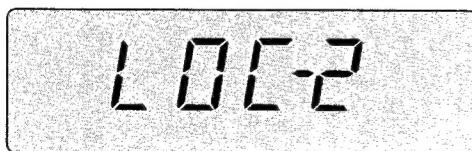
Generally, it is best to allow the ARC (Automatic Reception Control) function to automatically set the optimum listening conditions. When there is a large amount of noise, you can press button ⑦ for clearer mono reception ("MONO" ⑬ will appear on the display).

## Adjusting Seek Sensitivity

The seek tuning function of this tuner lets you select between a local setting for reception of strong stations only, and a DX (distant) setting for reception of weaker stations. The local setting also has four seek tuning sensitivity levels for FM and two levels for MW/LW to match local conditions.

## Changing the Local Seek Sensitivity

1. Use button ② to select a band.
2. Hold down the button ⑥ for more than two seconds, and the display will show you the current local seek sensitivity for about five seconds.



(Example: LOC-2)

3. While the local seek sensitivity remains on the display, press the (+) side of button ③ to increase the sensitivity level, and the (-) side to decrease the level as shown below.

FM : LOC-1  $\Rightarrow$  LOC-2  $\Rightarrow$  LOC-3  $\Rightarrow$  LOC-4

MW/LW: LOC-1  $\Rightarrow$  LOC-2

The LOC-4 setting allows reception of only the strongest stations, while lower settings let you receive progressively weaker stations.

- The display of local seek sensitivity returns to the frequency when about five seconds have elapsed after the change of sensitivity.

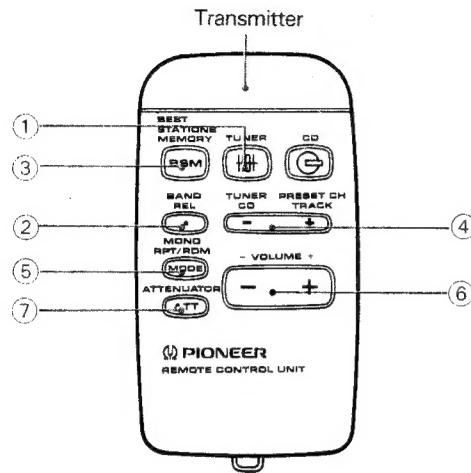
## Switching between Local and DX

Press button ⑥ to switch between Local and DX (distant) seek tuning. When "LOC" ⑨ is shown on the display, seek tuning is performed with the local seek sensitivity. Otherwise, seek tuning is performed with the DX seek sensitivity.

# Tuner Operation Using the Remote Control

## Note:

Remote control is only available on DEH-770.  
DEH-760 does not have remote control function.



## ① Tuner

The tuner is selected. Pressing again turns off the power.

## ② Band

Band changes.

$F_1 \rightarrow F_2 \rightarrow F_3 \rightarrow M/L$

(FM1) (FM2) (FM3) (MW/LW)

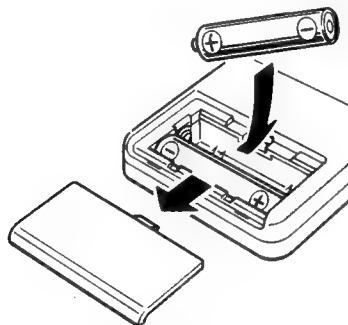
## ③ Best Stations Memory

Hold on this button for about two seconds, and you will hear a beep and see Best Stations Memory start.

## Preparing to Use the Remote Controller Unit

### Loading Batteries

1. Remove the battery compartment cover from the remote controller unit.
2. Load two batteries, whose type is UM-4, AAA, or R03, as applicable, that come with the unit into the remote controller unit, ensuring that their polarity (+/-) is correct.
3. Replace the battery compartment cover.

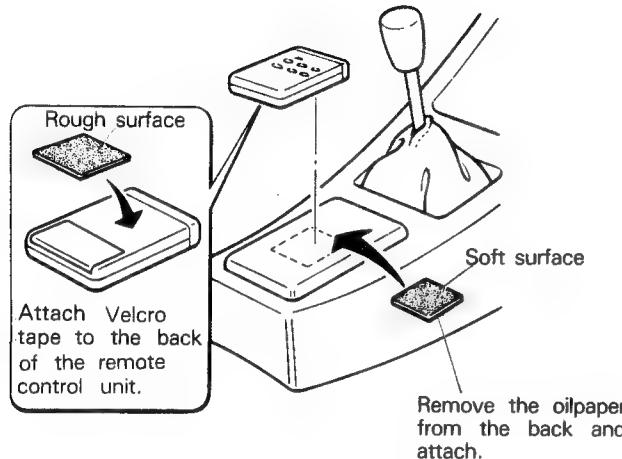


### Precautions When Loading Batteries

Note the following precautions when loading batteries into the remote controller unit to avoid damage due to battery fluid leakage.

- Always check carefully that you are loading batteries with their  $\oplus$  and  $\ominus$  poles facing in the proper directions.
- Never mix old and new batteries. Always replace batteries with two new ones.
- Some batteries may appear to be identical but have different voltage ratings. Never mix battery types.
- Some batteries can be recharged and some cannot. Be sure to carefully read the label for the batteries you use.
- To avoid damage to the remote controller caused by battery leakage, remove the batteries from the remote controller if you do not plan to use it for more than one month. If you find that fluid has leaked, thoroughly wipe out the battery compartment and load a set of new batteries.

## Installing the Remote Controller Unit



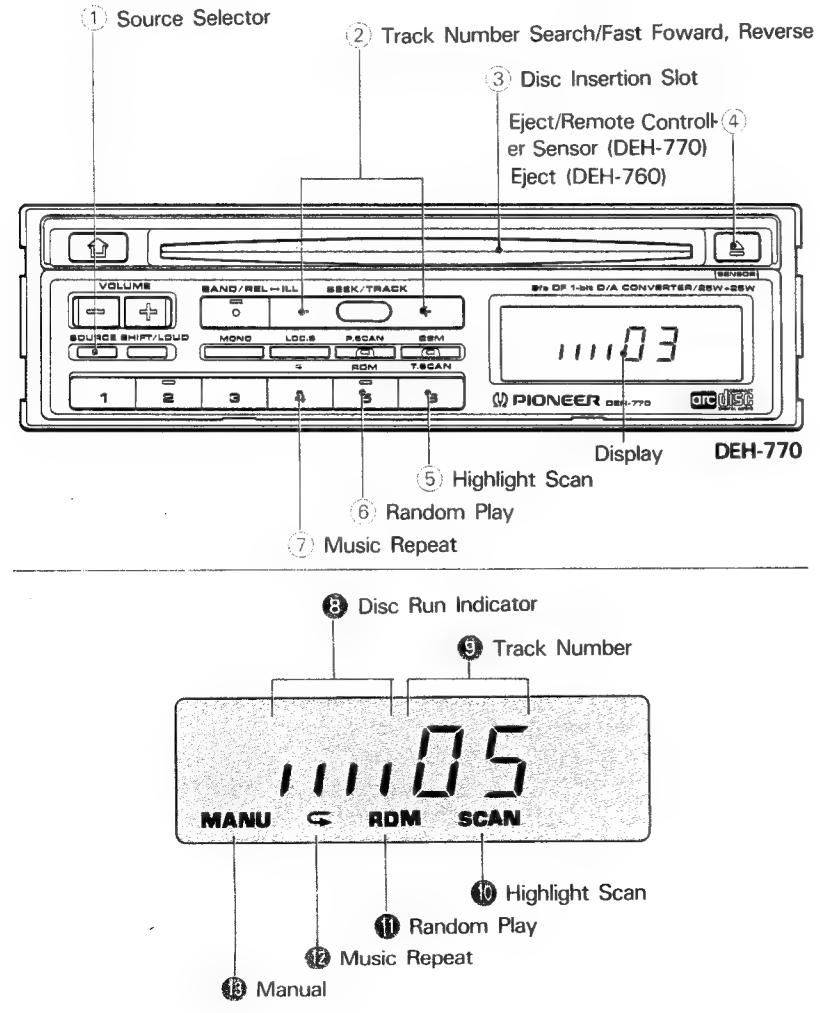
Affix a strip of Velcro tape to the back of the remote control unit. Remove the oil paper on the back and affix into place.

- Thoroughly wipe off the surface before affixing the Velcro tape.

### Precautions

- Keep the remote controller unit in an area not exposed to long periods of direct sunlight.
- The remote controller unit may not operate properly if the transmitter of the remote controller unit is pointed towards the floor or the seat of the vehicle.
- Since the transmitter employs an infrared system, it may not operate properly while car stereo unit is exposed to direct sunlight. In such a case, block the sunlight from the sensor and then perform the desired operation.
- If the remote controller fails to operate unless it is brought close to the unit, it may indicate that battery power is low. Replace the batteries in the remote controller.

# Playing Compact Discs



**1** When a disc is inserted half-way into the disc insertion slot (3) with its label side upward, the disc is automatically loaded and played.

(Track number (9) and disc run (8) indications will appear on the display.)

**2** Use track number search to select a track.

See that no "MANU" (8) illuminates on display. If it does, then turn it off by pressing the (+) and (-) sides of Button (2) simultaneously. Press the (+) side of button (2) to increase the number at position (9), or the (-) side to decrease the number. Holding either side of button (2) down changes the track number at high speed.

**3** Adjust volume and tone (see page 5).

**4** To eject or change the disc, press Button (4).

If an ejected disc is pushed back into the slot, it will be loaded and played again.

**Note:**

- If a disc can only be inserted halfway, or if the disc does not play after being loaded, something may be wrong with the disc. Eject the disc by pressing button (4), and check it. If it is all right, insert it again.
- Insert the disc with its label (printed) side facing up. If the disc is inserted with the label side facing down, it will not play, and the recorded side may be damaged.
- Do not insert two discs into the slot at the same time. This may cause a malfunction.

## Using Highlight Scan

Highlight Scan is designed to enable you to conveniently scan all pieces of music contained in the disc by playing 10 seconds each at your designated point of time after the start of the music. The starting time of play is set at one minute in factory. Therefore, the Highlight Scan begins one minute after the start unless you designate it otherwise.

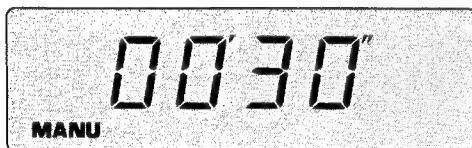
When you do not want to change the factory-set time:

1. Press Button ⑤, and "SCAN" ⑩ will illuminate.
2. The contained pieces of music will be played in sequence for 10 seconds each one minute after the beginning.
3. Press Button ⑤ again when your selected piece comes, and it will continue to play. At this point, the Highlight Scan discontinues to operate.
- The previous function automatically resumes when a piece of music with which Highlight Scan began returns.

### Changing the Starting Time of Highlight Scan

When you want to set the starting time of the Highlight Scan to 30 seconds:

1. Press Button ②, (+) and (-) sides simultaneously, and "MANU" ⑬ will illuminate and time numerals will be displayed.
2. Keep pressing either (+) or (-) side of Button ② until the numerals reaches 30.



3. Hold down Button ⑤ for two or more seconds, and "SCAN" ⑩ will illuminate and the Highlight Scan will begin 30 seconds after the start of the next piece of music.

- The starting time of Highlight Scan can be designated at ten or tens of seconds only. A tenth or tenths of seconds can be disregarded.
- If a piece of music ends before your designated point of time at which Highlight Scan starts, the scanning is performed for its beginning 10 seconds.
- If a piece of music lasts less than 10 seconds, so does the Highlight Scan.
- You may wish to change the starting time longer without suspending the function. You may do so, however, only to a relatively long-playing piece of music because, as a matter of course, the time cannot be set so as to come after the end of the music.

## Using Random Play

This function uses the built-in microprocessor to randomly play tracks from the disc.

1. Press button ⑥. "RDM" ⑪ will appear on the display. Once the current track has been played, the microprocessor will randomly select the next track.
2. To cancel random play, press button ⑥ again.

## Using Music Repeat

This function lets you listen to a track as many times as you wish.

1. While the track you want to repeat is playing, press button ⑦. "⟳" ⑫ will appear on the display. Now the track will repeat until the music repeat function is canceled.
2. To cancel music repeat, press button ⑦ again.
- When music repeat is not operational, the whole disc will be played repeatedly.

## Playing Disc by Remote Control

### Using Fast Forward and Reverse

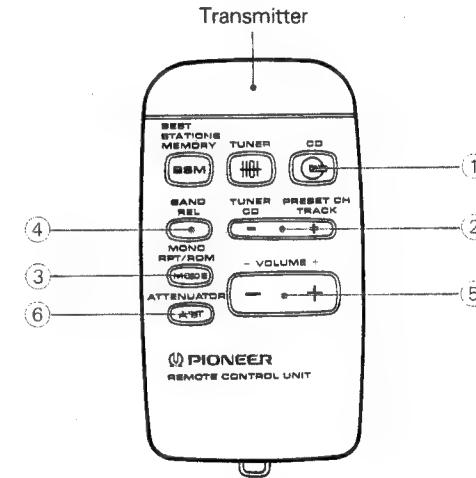
1. Press simultaneously both (+) and (-) sides of the button ② "MANU" ⑬ will appear on the display. At this time the display will show the amount of elapsed disc play time.



2. Press the (+) side of button ② for fast forward, and the (-) side for reverse.
  - Sound is output during fast forward and reverse operations.
  - When a disc in which there are several seconds between tracks is used, the amount of elapsed disc-play time is shown, for example, as -0'02 and -0'01.

#### Note:

Remote control is only available on DEH-770.  
DEH-760 does not have remote control function.



# Connecting the Units

---

## ① CD

When a disc is inserted in the built-in CD player, the unit will switch to disc play mode. Pushing the button once again turns the power off.

## ② Track Number Search

Press to search for a selection (track number) on the current disc. Press the (+) side to increase the track number on the display, and the (–) side to reduce the track number. Holding down either side of this button changes the track number at high speed.

## ③ Music Repeat/Random Play

Use this button to select music repeat or random play mode. Pressing this button repeatedly cycles the mode through RPT, RDM, and normal.

## ④ Release

Press this button to cancel music repeat, random play and highlight scan.

## ⑤ Volume

Press the (+) side to increase volume and the (–) side to decrease volume.

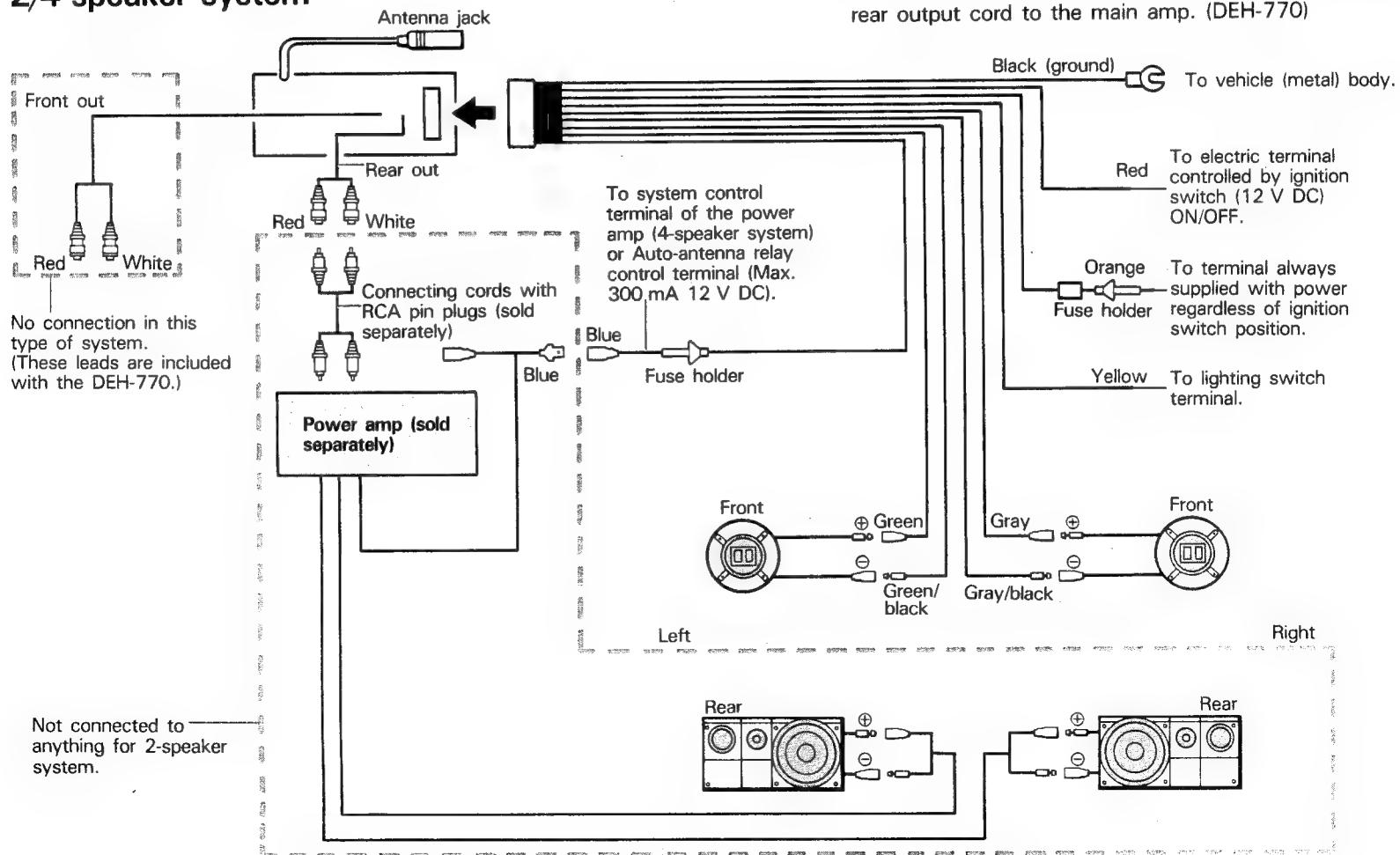
## ⑥ Attenuator

Press to reduce the volume to 1/10 of its current setting (volume display flashes). Pressing again returns the volume to its original level.

- This function is available using the remote controller unit only.

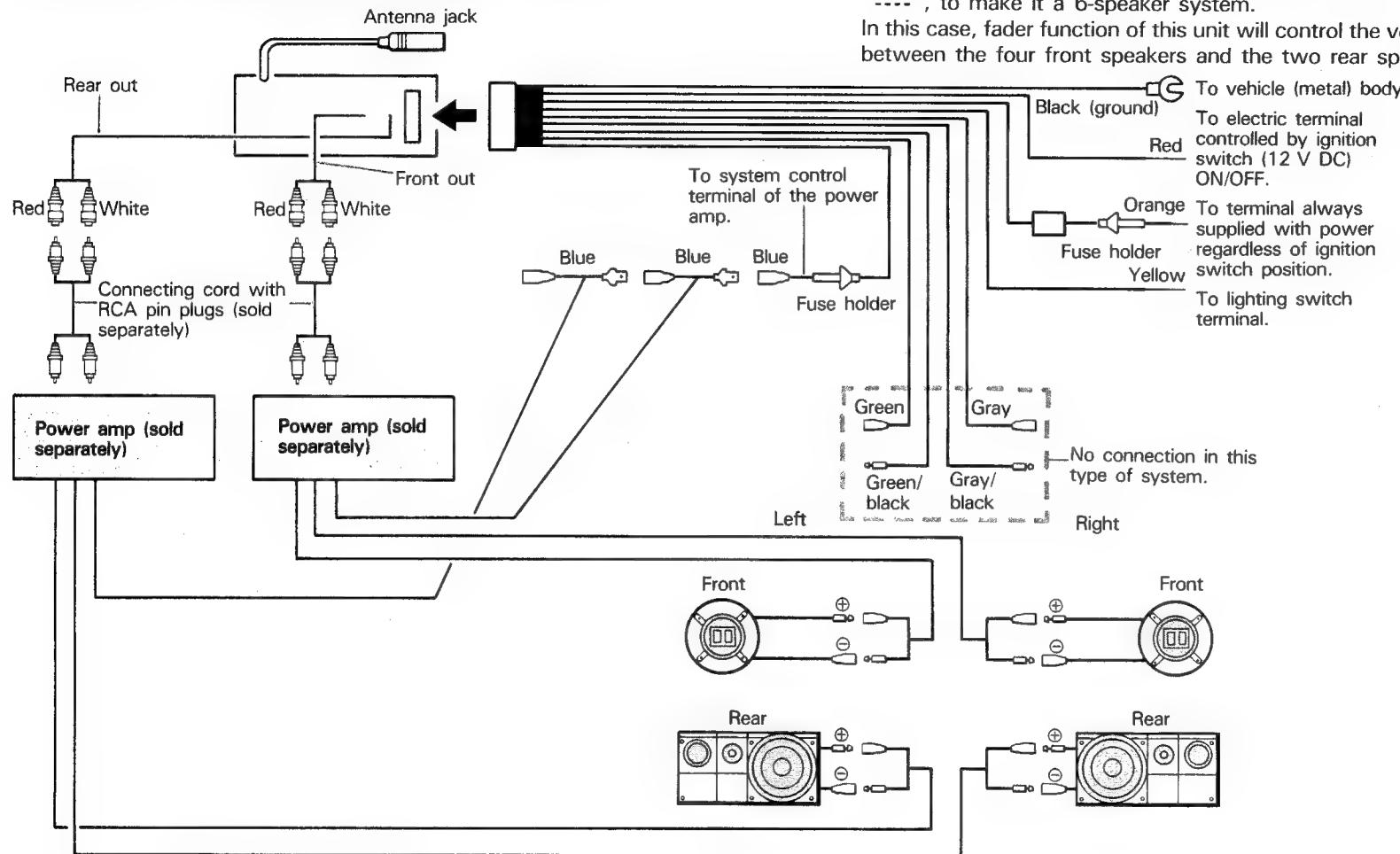
- Before making final connections, make temporary connections then operate the unit to check for any connecting cord problems.
- Refer to the owner's manual for details on connecting the various cords of the power amp and other units, then make connections correctly.
- Be sure to connect the memory power supply lead (orange) to a terminal that is always supplied with power regardless of the vehicle's ignition switch position. If this connection is made incorrectly or is forgotten, the unit will not work at all.
- Don't pass the orange lead through a hole into the engine compartment to connect to the battery. This will damage the lead insulation and cause a very dangerous short.
- Since a unique BPTL circuit is employed, never wire so the speaker leads are directly grounded or the left and right speaker  $\ominus$  leads are common.
- Speakers connected to this unit must be high-power types possessing minimum rating of 25W and impedance of 4 to 8 ohms. Connecting speakers with output and/or impedance values other than those noted here can damage the speakers.

## 2/4-speaker system



## External 4 channel amp system (DEH-770)

- Optional front speakers can be connected as illustrated with the "----", to make it a 6-speaker system. In this case, fader function of this unit will control the volume balance between the four front speakers and the two rear speakers.



# Installation

## Note:

- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance. (Fig. 1)
- The semiconductor laser will be damaged if it overheats, so don't install the unit anywhere hot — for instance, near a heater outlet.

## Installation with the rubber bush

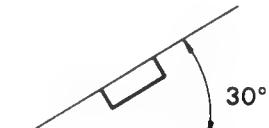
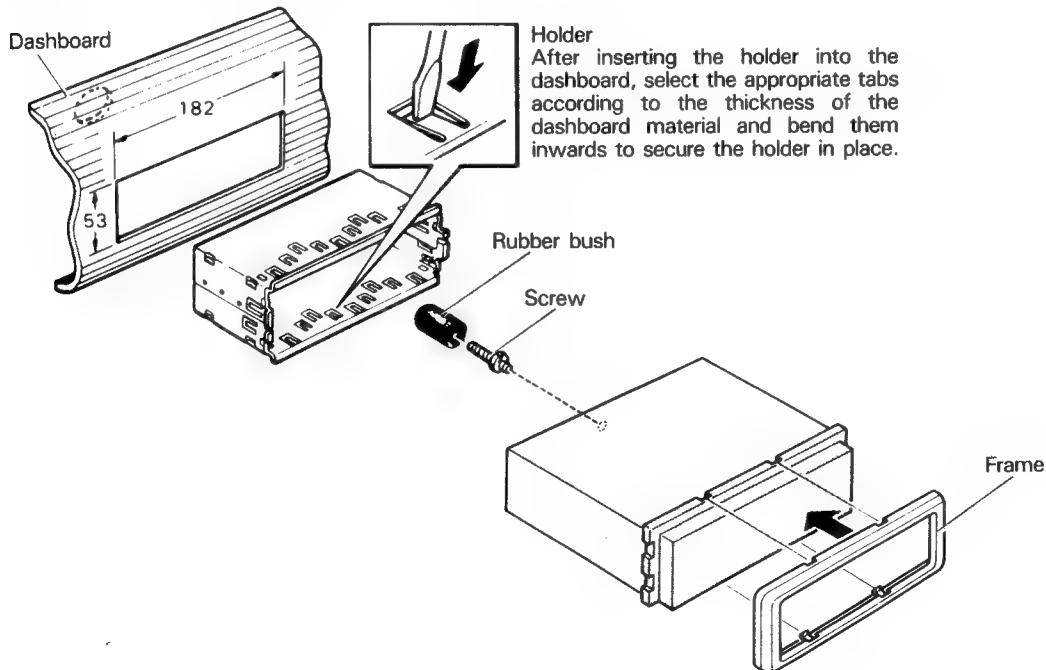
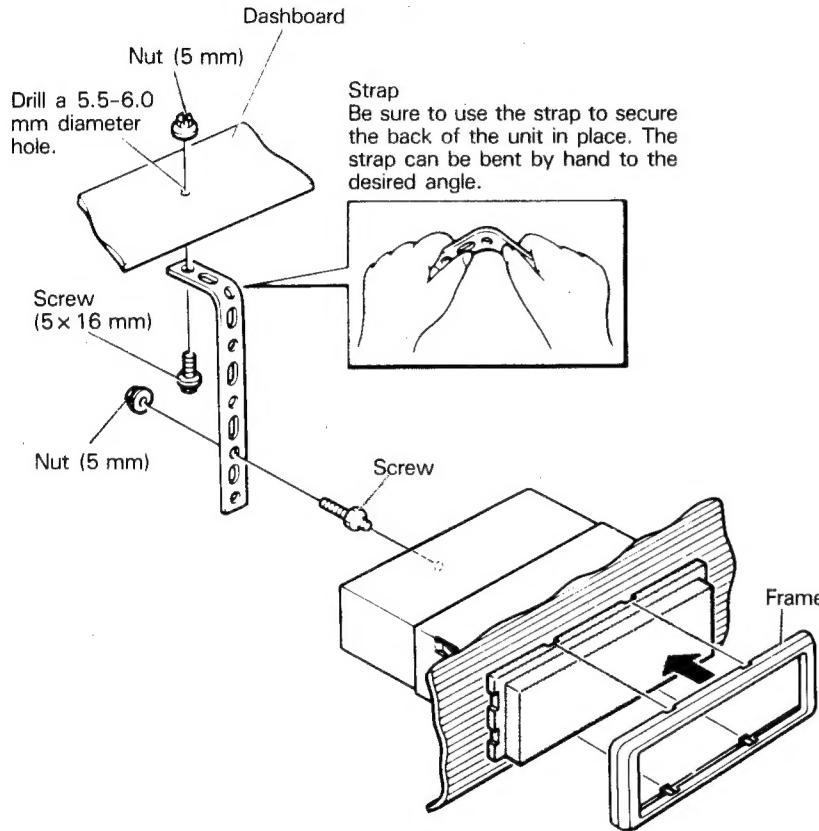
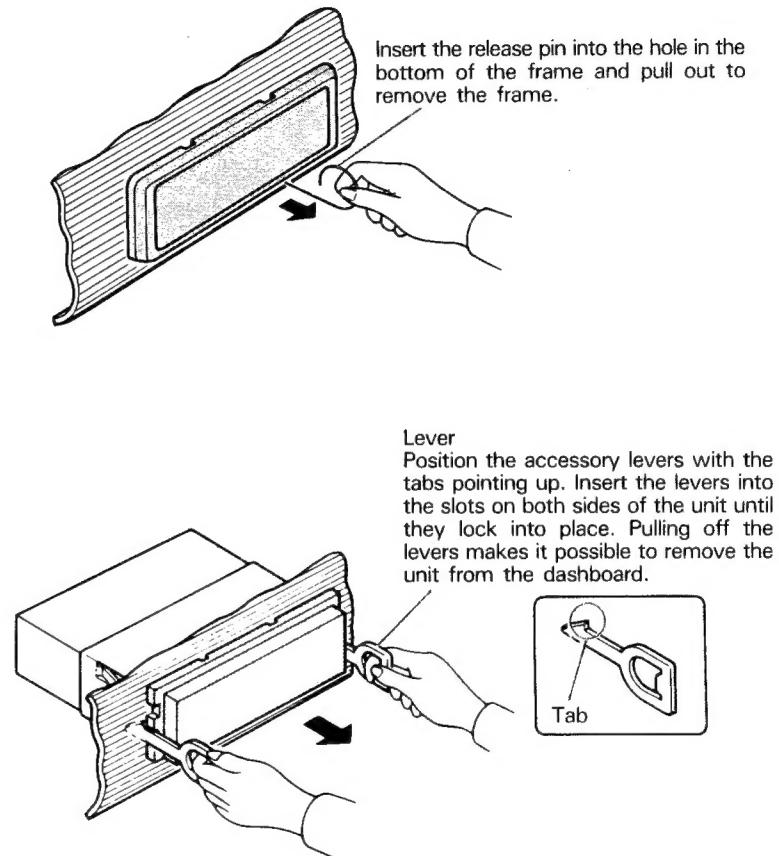


Fig. 1

## Installation without the rubber bush



## Removing the unit



# Discs

- Only use compact discs (optical digital audio discs) bearing the mark shown below. (Fig. 1)
- Be sure never to touch the signal surface when handling discs. Pick up discs by grasping the outer edges or the edge of the hole and the outer edge. (Fig. 2) (Fig. 3)
- Do not affix paper or tape, and avoid scratching the side of the disc which contains the label (contents of disc). (Fig. 4)
- The disc revolves at high speed within the player unit, so defective (cracked or badly bent) discs should not be used. (Fig. 5) (Fig. 6)
- Dust and/or finger smudges will have no direct effect on the signal



Fig. 1

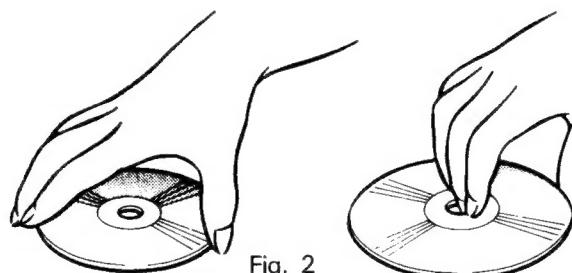


Fig. 2

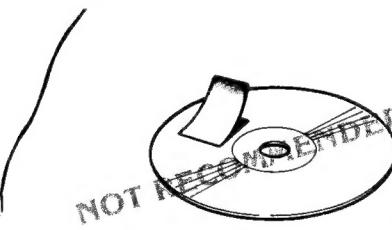


Fig. 3

- recorded on the disc, but dirt can decrease the amount of light reflected from the recorded surface, thus affecting sound quality. If the disc should become soiled, gently wipe the surface with a soft lint-free cloth, wiping from the center of the disc to the edge. (Fig. 7)
- Do not use record sprays or antistatic agents. Such volatile chemicals as benzine and thinner can also damage the surface of the disc and should not be used. (Fig. 8)
- As with traditional audio records, compact discs are made of plastic. To avoid warping, keep the discs in their cases and do not store them in places exposed to direct sunlight. (Fig. 9)

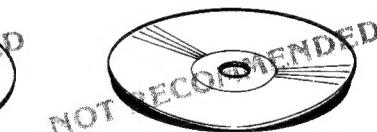


Fig. 4

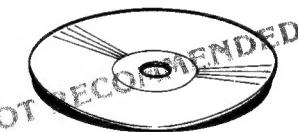


Fig. 5



Fig. 6

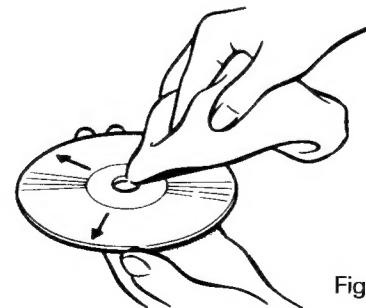


Fig. 7

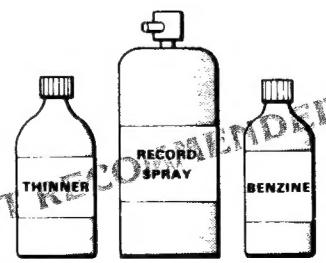


Fig. 8

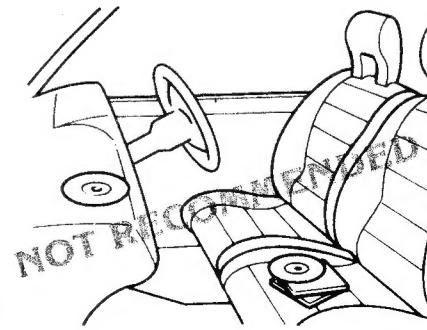
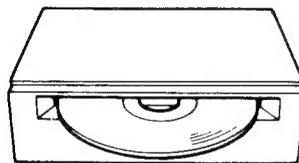


Fig. 9

# Precautions

- To assure proper operation of the unit, keep the vehicle interior temperature within a normal range using the vehicle's air conditioner or heater.
- When replacing fuses, be sure to use only fuses of the rating prescribed on the fuse holder.
- To protect the semiconductor laser from damage, the CD player will automatically terminate disc play when its internal temperature rises past a standard level. When this occurs, *HHHH* will appear on the display to indicate that the standard level has been exceeded. Eject the disc from the unit using the eject button and wait until the temperature returns to normal.
- Do not leave an ejected disc in the insertion slot for extended periods since direct sunlight can cause warping. Always return discs to their cases and store in areas not exposed to direct sunlight.



Discs should not be left like this for extended periods.

- Do not leave an ejected 8-cm CD in the slot while driving. The vibration may make it drop out.

- When driving on an uneven road, the player may not reproduce every sound properly.
- Never remove the top case of the unit to attempt check or repairs. If operation of the unit is abnormal, contact your dealer or the nearest Pioneer Service Station.
- If the car's battery is disconnected for any reason, the preset memory will be erased and must be reprogrammed after reconnection of the battery.
- When driving your vehicle, be sure to keep the volume of the unit set low enough to allow you to hear sounds coming from outside.

## Condensation

- During winter the inside of the vehicle may be very cold. If the heater is turned on and the player is used soon after, the disc or optical parts (prism, lens, etc.) may become misted up. If the disc is misted up, wipe it with a soft cloth. If the optical parts are misted up, wait for about an hour for them to warm up. They will return to their normal condition.

## In case of trouble

When the unit does not operate properly, contact your dealer or the nearest authorized PIONEER Service Station.

# Specifications

ENGLISH

## General

Power source	14.4 V DC (10.8–15.6 V allowable)
Grounding system	Negative type
Max. current consumption	5.5 A
Dimensions (chassis)	180(W) × 50(H) × 155(D) mm
	(front face) 188(W) × 58(H) × 14(D) mm
Weight	1.6 kg

## Amplifier

Max. power output	25 W + 25 W (EIAJ)
Continuous power output	11 W + 11 W (1% dist. at 1 kHz)
Load impedance	4 Ω (4–8 Ω allowable)
Nominal output level/ output impedance (pre out)	500 mV/1 kΩ
Tone controls (bass)	± 10 dB (100 Hz)
	(treble) ± 10 dB (10 kHz)
Loudness contour	+12 dB (100 Hz), +7 dB (10 kHz) (volume: –30 dB)

## CD player

System	Compact disc audio system
Usable discs	Compact disc
Signal format	Sampling frequency: 44.1 kHz Number of quantization bits: 16; linear
Frequency characteristics	5–20,000 Hz (± 1 dB)
Signal-to-noise ratio	94 dB (1 kHz) (IEC-A network)
Dynamic range	90 dB (1 kHz)
Number of channels	2 (stereo)

## FM tuner

Frequency range	87.5–108 MHz
Usable sensitivity	11 dBf (1.0 µV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity	16 dBf (1.7 µV/75 Ω, mono)
Signal-to-noise ratio	70 dB (IEC-A network)
Distortion	0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response	30–15,000 Hz (± 3 dB)
Stereo separation	40 dB (at 65 dBf, 1 kHz)

## MW tuner

Frequency range	531–1,602 kHz
Usable sensitivity	18 µV (25 dB) (S/N: 20 dB)
Selectivity	50 dB (± 9 kHz)

## LW tuner

Frequency range	153–281 kHz
Usable sensitivity	30 µV (30 dB) (S/N: 20 dB)
Selectivity	50 dB (± 9 kHz)

## Note:

Specifications and the design are subject to possible modification without notice due to improvements.